

Project Fabrication and Characterization of Nanoelectronic Devices and Circuits
Owner Jan-David Fischbach **Start Date** 14.05.2021
Page 1/2 **Revised Date** June 5, 2021
Samples 6 SOI samples, 6 bulk samples

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run sheet

Nr.	Description	Tool	Operator	Date	Duration	Parameters
1.	start material					1.5 cm × 1.5 cm SOI sample pieces diced from 12" SOI wafer, SOI samples (top-Si=85 nm, BOX=145 nm, (100)-oriented, $\rho=13.5\text{-}22.5\ \Omega\cdot\text{cm}$, doping concentration (Boron)= $1\text{e}15\ \text{atoms}/\text{cm}^3$) bulk-Si samples (thickness 625 μm , (100)-oriented, $\rho=15\text{-}25\ \Omega\cdot\text{cm}$, doping concentration (Boron)= $1\text{e}15\ \text{atoms}/\text{cm}^3$)
2.	RCA clean	CMNT R001	B. Sun	01.04.2019	120:00 min	piranha solution: 150 ml H_2SO_4 + 50 ml H_2O_2 , 10 min DI water rinse 10 min 1 % HF till surface is hydrophobic DI water rinse 10 min SC-1: 125 ml H_2O + 25 ml NH_4OH + 25 ml H_2O_2 : 10 min DI water rinse 10 min 1 % HF till surface is hydrophobic DI water rinse 10 min SC-2: 150 ml H_2O + 25 ml HCl + 25 ml H_2O_2 : 10 min DI water rinse 10 min
3.	Description	Tool	Operator	Date	Duration	Parameters

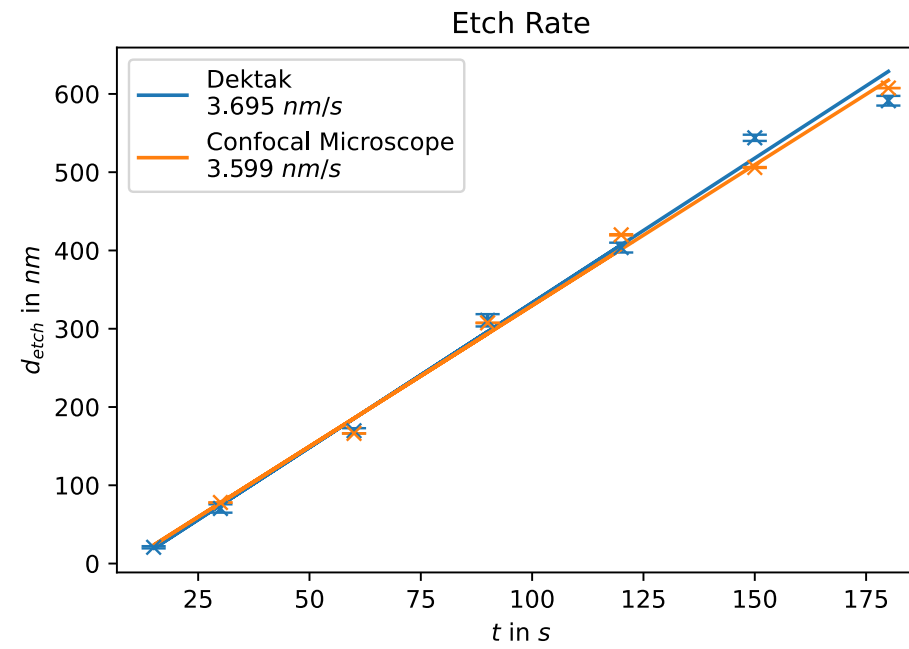


Figure 1: Estimation of the etch rate from dektak and confocal microscope measurements